VII. Socio-Economic Factors

The management of natural resources is as much a social issue as a scientific one. While science is used to achieve management goals, it is human values and other sociological considerations that define those goals. The participants in the Montreal Process (www.mpci.org/rep-pub/1999/broch_e.html) recognized this when they stated that "...an informed, aware and participatory public is indispensable to promoting the sustainable management of forests." The development of both the ecoregional guidance documents (assessments/management frameworks), and the specific land management plans, will accordingly involve substantial opportunities for public input and involvement. Further, assessments of other socio-economic data will be conducted to shed further light on the social aspects of forest management.

Demographics and Forestland Ownership

The estimated population (based on the 2000 U.S. Census) of the Berkshire Ecoregions is ~300,000. Population estimates for the 70 communities in the Berkshire Ecoregions range from 93 to 45,793 (**Table 17 and Figure 27**). Many of these communities are small towns. Half (35) of all communities in the Berkshire Ecoregions have populations of less than 1,500 (**Table 17 and Figure 27**). The only four (4) cities in the 5 ecoregions have the largest populations: Pittsfield (45,793), Westfield (40,072), Northampton (28,978), and North Adams (14,681). The highest population densities are in Pittsfield (1,194/sq. mi.) and Easthampton (1,159/sq. mi.), followed by Greenfield (859/sq. mi.), Northampton (850/sq. mi.), Westfield (824/sq. mi), and North Adams (822/sq. mi.). As is typical of small rural communities, residential development is often dispersed across the landscape, meaning that many residents live in close proximity to (and often surrounded by) the forest. This results in a different relationship to and understanding of the natural world than is typical of more urban dwellers.

Communities in the Berkshire Ecoregions grew by an average of just under 12% from 1980 to 2000 (versus a statewide average of 18%). Population growth, of the 70 communities combined, was just over 1.126% (**Table 17**). Growth exceeded 50% in two communities, with one community exceeding 83% (Tolland), and 18 communities that experienced negative growth during this period (**Table 17** and **Figure 28**).

The amount of developed land in the 70 communities in the Berkshire Ecoregions increased by approximately 50% from 1971 to 1999 (**Table 18**), with 19 communities experiencing greater than 70% increases. One observation worth noting is that there were four communities that experienced negative population growth (Alford, Savoy, Tyringham, and Washington) that also experienced increases in developed land during the same time period (**see Table 17** and **Figures 28** and **29**).

Build-out analyses conducted by EOEA several years ago indicates that the population in the 70 communities could more than triple if all available buildable land was developed. Overall, these communities could see population increases averaging 854%. However, all four cities (North Adams, Northampton, Pittsfield, and Westfield) and two towns (Dalton and Easthampton) are predicted to have a negative population change at buildout. Twenty-two (22) communities could see increases of more than 1,000% with 6 of the 22 over 2,200% and one exceeding 4,000% (**Table 17** and **Figure 30**).

One result of the recent population growth and development trends is the further subdivision of large forested tracts into smaller units. Approximately 28% of the forestland in the Berkshire Ecoregions is publicly-owned (**Table 19**). While this is somewhat higher than the state as a whole (in which about 24% is publicly-owned) (Petersen, 2000), it still leaves a substantial acreage that is in private ownership.

In Massachusetts, it has been estimated that the number of landowners with fewer than 50 acres of timberland has more than doubled since 1973 (USDA/FS, 2002). This can have a strong influence on how our forestland is managed, since owners of relatively small blocks of forest are less likely to manage their land for forest products, and are also more reluctant to allow others on their land for hunting, fishing and other recreational activities (USDA/FS, 2002)

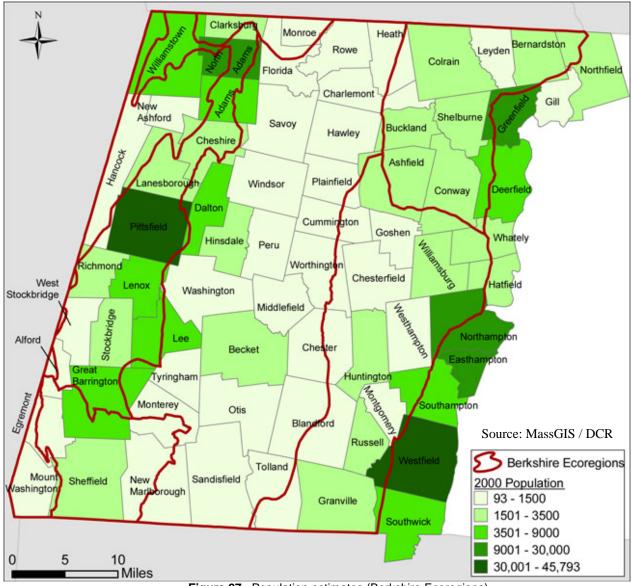


Figure 27. Population estimates (Berkshire Ecoregions).

Table 17. Population data (Berkshire Ecoregions) [Cities (4) are in CAPITOL LETTERS]

		[Cities	(4) are in C	APITOL LETTE						
					%					
	1980	2000	% Change	Additional	Change		2		4	
Communities	Population	Population	Change (80-00)	population at buildout	(2000- BO)	¹ TM	нн	3BVU	SVP	⁵SGM
Adams	10,181	8,809	-13.5%	10,031	13.9%	Х		х		
Alford	402	399	-0.7%	4,210	955.1%	Х	Х			
Ashfield	1,502	1,800	19.8%	22,407	1144.8%		Х	Х	Х	
Becket	1,480	1,755	18.6%	19,307	1000.1%			Х		
Bernardston	1,776	2,155	21.3%	18,041	737.2%				Х	
Blandford	1,120	1,214	8.4%	19,418	1499.5%		Х	Х		
Buckland	1,872	1,991	6.4%	10,310	417.8%			Х	Х	
Charlemont	1,203	1,358	12.9%	13,917	924.8%			Х	Х	
Cheshire	3,310	3,401	2.7%	6,080	78.8%	Х		Х		
Chester	1,182	1,308	10.7%	17,352	1226.6%		Х	Х		
Chesterfield	1,157	1,201	3.8%	14,532	1110.0%		Х			
Clarksburg	1,756	1,686	-4.0%	2,798	66.0%	Х		Х		Х
Colrain	1,574	1,813	15.2%	28,355	1464.0%			Х	Х	
Conway	1,342	1,809	34.8%	13,195	629.4%		х		Х	
Cummington	741	978	32.0%	15,717	1507.1%		Х	Х		
Dalton	6,669	6,892	3.3%	5,724	-16.9%	Х		Х		
Deerfield	4,503	4,750	5.5%	18,624	292.1%				Х	
Easthampton	16,189	15,994	-1.2%	11,853	-25.9%		Х			
Egremont	1,270	1,345	5.9%	11,284	739.0%	Х	Х			
Florida	687	676	-1.6%	5,856	766.3%	^		Х		Х
Gill	1,279	1,363	6.6%	7,118	422.2%			_^	Х	_^
Goshen	734	921	25.5%	8,703	845.0%		Х		^	
Granville	1,298	1,521	17.2%	7,061	1679.2%		X			
Great Barrington	7,314	7,527	2.9%	9,184	287.7%	Х		v		
Greenfield	18,073	18,168	0.5%	18,883	3.9%		Х	Х	Х	
Hancock	611	721	18.0%	7,875	992.2%					
						Х	.,			
Hatfield	3,110	3,249	4.5%	13,145	304.6%		Х			
Hawley	336	336	0.0%	8,057	2297.9%			Х	Х	
Heath	536	805	50.2%	13,942	1631.9%			Х	Х	
Hinsdale	1,675	1,872	11.8%	6,039	222.6%			Х		
Huntington	1,858	2,174	17.0%	8,500	291.0%		Х			
Lanesborough	3,171	2,990	-5.7%	9,531	218.8%	Х		X		
Lee	6,093	5,985	-1.8%	9,419	57.4%	Х		Х		
Lenox	6,528	5,077	-22.2%	10,268	102.2%	Х		Х		
Leyden	528	772	46.2%	9,798	1169.2%				Х	
Middlefield	394	542	37.6%	9,385	1631.5%			Х		
Monroe	148	93	-37.2%	3,403	3559.1%			Х		Х
Monterey	925	934	1.0%	6,672	614.3%	Х	Х	Х		
Montgomery	654	654	0.0%	5,352	718.3%		Х			
Mount Washington	100	130	30.0%	2,515	1834.6%	Х				
New Ashford	144	247	71.5%	2,723	1002.4%	Х				
New Marlborough	1,251	1,494	19.4%	34,510	2209.9%		Х	Х		
NORTH ADAMS	17,387	14,681	-15.6%	13,730	-6.5%	Х		Х		х
NORTHAMPTON	29,179	28,978	-0.7%	19,084	-34.1%		Х			

Northfield	2,348	2,951	25.7%	18,847	538.7%				Х	
Otis	966	1,365	41.3%	27,642	1925.1%			Х		
Peru	764	821	7.5%	8,556	942.1%			Х		
PITTSFIELD	50,340	45,793	-9.0%	42,891	-6.3%	Х		Х		
Plainfield	433	589	36.0%	6,912	1073.5%		Х	Х		
Richmond	1,641	1,604	-2.3%	5,937	270.1%	Х				
Rowe	337	351	4.2%	2,923	732.8%			Х		Х
Russell	1,524	1,657	8.7%	3,628	118.9%		Х			
Sandisfield	765	824	7.7%	36,167	4289.2%		Х	Х		
Savoy	751	705	-6.1%	6,027	754.9%			Х		
Sheffield	2,752	3,335	21.2%	25,465	663.6%	Х	Х			
Shelburne	1,986	2,058	3.6%	7,405	259.8%				Х	
Southampton	4,354	5,387	23.7%	20,240	275.7%		Х			
Southwick	7,634	8,835	15.7%	20,100	127.5%		Х			
Stockbridge	2,320	2,276	-1.9%	6,591	189.6%	Х		Х		
Tolland	232	426	83.6%	11,492	2597.7%		Х	Х		
Tyringham	365	350	-4.1%	10,722	2963.4%	Х		Х		
Washington	553	544	-1.6%	3,450	534.2%	Х		Х		
West Stockbridge	1,285	1,416	10.2%	4,309	204.3%	Х				
WESTFIELD	36,924	40,072	8.5%	21,680	-45.9%		Х			
Westhampton	1,268	1,468	15.8%	24,315	1556.3%		Х			
Whately	1,363	1,573	15.4%	16,967	978.6%		Х		Х	
Williamsburg	2,447	2,427	-0.8%	15,041	519.7%		Х			
Williamstown	8,383	8,424	0.5%	12,311	46.1%	Х				Х
Windsor	589	875	48.6%	7,577	765.9%			Х		
Worthington	1,059	1,270	19.9%	13,300	947.2%		Х	Х		
TOTALS	296,625	299,964	1.126%	934,403						

Source: DCR / MassGIS

¹ TM - Taconic Mountains

² HH - Hudson Highlands

³ BVU = Berkshire Vermont Upland

⁴ SVP = Southern Piedmont

⁵ SGM = Southern Green Mountains

Table 18. Percent change in developed land in the Berkshire Ecoregion communities, 1971-1999. [Cities (4) are in CAPITOL LETTERS] Source: DCR / MassGIS

COMMUNITIES	% Change 1971- 1985	% Change 1985- 1999	% Change 1971- 1999
Adams	7.55	4.49	12.3
Alford	33.60	53.80	105.00
Ashfield	40.10	40.60	97.10
Becket	19.10	32.80	58.20
Bernardston	33.90	33.90	79.30
Blandford	10.80	6.39	17.90
Buckland	10.90	19.60	32.60
Charlemont	14.20	16.50	33.10
Cheshire	26.20	12.20	41.70
Chester	20.30	16.30	40.00
Chesterfield	27.00	40.50	78.50
Clarksburg	9.13	13.60	23.90
Colrain	15.80	23.60	43.10
Conway	29.40	74.40	125.00
Cummington	10.80	23.10	36.40
Dalton	13.40	17.20	33.00
Deerfield	27.20	20.10	52.70
Easthampton	23.40	16.20	43.50
Egremont	16.40	1.39	18.00
Florida	-6.90	18.00	9.85
Gill	18.10	20.90	42.80
Goshen	25.20	33.20	66.80
Granville	21.80	15.70	40.90
Great Barrington	11.90	16.90	30.90
Greenfield	9.73	6.91	17.30
Hancock	11.20	18.40	31.70
Hatfield	24.30	26.50	57.30
Hawley	4.75	27.90	34.00
Heath	70.00	13.30	92.60
Hinsdale	16.60	19.20	39.10
Huntington	14.90	15.40	32.70
Lanesborough	17.60	31.70	54.90
Lee	9.90	8.56	19.30
Lenox	14.80	9.64	25.90
Leyden	34.90	41.10	90.40
Middlefield	27.60	47.00	87.60
Monroe	6.39	-9.70	-4.00
Monterey	31.80	22.10	61.00
Montgomery	35.00	35.60	83.00
Mount Washington	12.10	11.30	24.80
New Ashford	2.80	10.40	13.50
New Marlborough	18.20	34.20	58.70
NORTH ADAMS	4.60	5.97	10.80
NORTHAMPTON	13.80	13.60	29.30
Northfield	8.31	20.80	30.80
Otis	30.80	14.50	49.90

Peru	37.50	31.60	81.00
PITTSFIELD	7.63	6.02	14.10
Plainfield	28.30	55.30	99.40
Richmond	27.20	23.00	56.60
Rowe	-18.00	0.96	-17.00
Russell	10.90	16.50	29.20
Sandisfield	37.10	6.53	46.00
Savoy	23.30	44.00	77.60
Sheffield	23.60	23.30	52.50
Shelburne	6.93	24.20	32.90
Southampton	38.40	36.00	88.20
Southwick	26.50	43.40	81.50
Stockbridge	8.65	10.10	19.60
Tolland	45.80	15.10	67.90
Tyringham	43.40	34.80	93.30
Washington	52.30	32.00	101.00
West Stockbridge	24.40	38.10	71.90
WESTFIELD	22.60	19.90	47.00
Westhampton	40.70	31.00	84.30
Whately	21.10	24.00	50.30
Williamsburg	23.90	30.80	62.20
Williamstown	5.98	7.58	14.00
Windsor	36.40	37.30	87.40
Worthington	30.50	19.90	56.60
TOTALS:	21.21	22.96	50.01

Table 19. Publicly owned forest land (Berkshire Ecoregions)

Ecoregion (Land Type Association)	¹ Forested (acres)	² Publicly owned land (acres)	% of Forested land that is Publicly-owned
Berkshire-Vermont Upland	374,492	131,369	35%
Hudson Highlands	239,921	56,200	23%
Berkshire Transition Association	194,284	46,918	24%
Western New England Marble Valley Association	45,637	9,282	20%
Southern Green Mountains	18,783	7,264	39%
Southern Vermont Piedmont	107,193	8,759	8%
Taconic Mountains	235,151	68,730	29%
Taconic Highlands Association	105,052	50,672	48%
Western New England Marble Valley Association	130,099	18,058	14%
Totals:	975,540	272,322	28%

Notes:

Source: DCR / MassGIS

Land Use is calculated from 1999, 21 category data from MassGIS (Table 3)

This is Open Space owned permanently by Federal, State, and Non-Oprofit agencies as of 11/2004 (stats taken from Table 4).

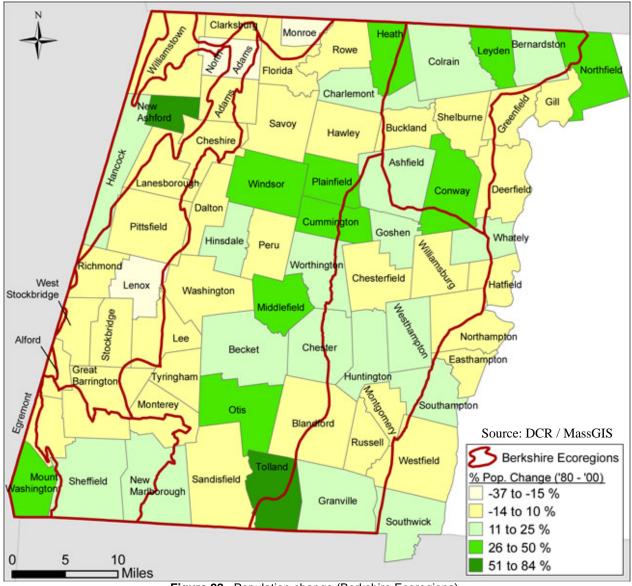


Figure 28. Population change (Berkshire Ecoregions).

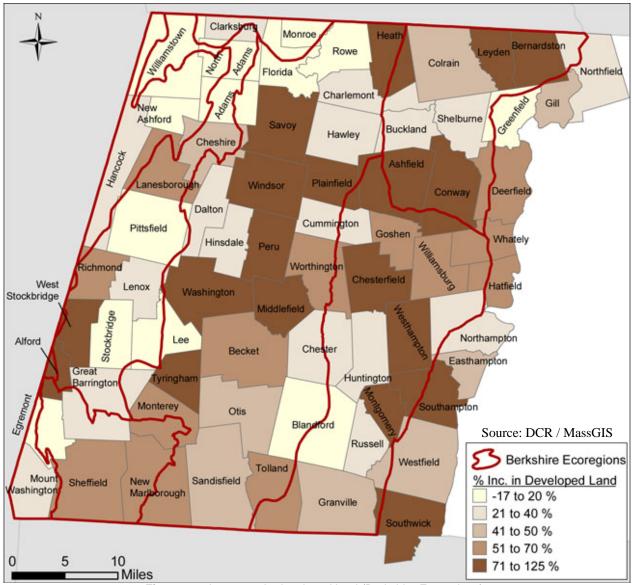


Figure 29. Increases in developed land (Berkshire Ecoregions).

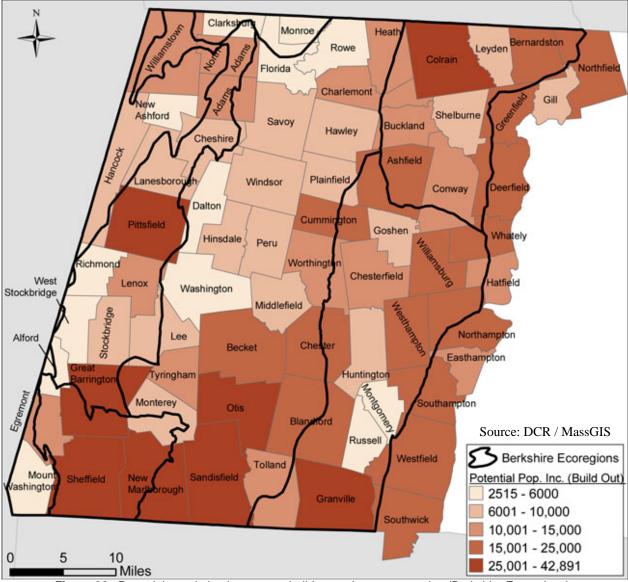


Figure 30. Potential population increase at buildout under current zoning (Berkshire Ecoregions).

Outdoor Recreation

The <u>Division of State Parks and Recreation</u> maintains 62 properties (144,289 acres) in the Berkshire Ecoregions, most of which provide various outdoor recreational opportunities. These include 35 state forests, 9 state parks, 3 state reservations, 9 lakes/ponds and 6 miscellaneous properties, including the Western Region headquarters, the eleven mile Ashuwillticook Rail Trail, and the eighty mile Appalachian Trail (**Figure 31**). These properties range in size from the seven acre Western Gateway Heritage Park to the 16,625 acre October Mountain SF. Ten of these properties are staffed on a year round basis, eleven are staffed seasonally and thirty nine are unstaffed, acting as satellite areas to the staffed facilities. A list of the properties can be found in **Appendix X**. Information on outdoor recreational opportunities offered by the division is available at: www.mass.gov/dcr/forparks.htm.

Much of the outdoor recreation that occurs on these properties is forest or water-based. The formal camping areas are all located at staffed facilities, which incorporate the Reserve America system for campground reservations. There are approximately 460 campsites in the ecoregions, ranging in size

from 12 to 93 sites. In addition, there are approximately 20 wilderness sites scattered throughout the region and a handful of group camping sites.

Most of the camping areas also provide fee based day use areas which provide picnicking, hiking, swimming and boating. In addition, there are three fee based day use areas and numerous unstaffed areas which do not charge but allow for donations to the Conservation Trust. This Conservation Trust allows for any collected funds to be used for improvements or programming at the facility.

Due to the approximately 150,000 acres of DCR managed open lands and hundred of miles of trails, the ecoregions lend themselves to numerous trail based recreational activities. Trail uses include hiking, mountain biking, off road vehicles (ORV), and equestrian. In addition, the Ashuwillticook Rail Trail supports walking, skateboarding, and bicycling.

The Berkshire Ecoregions supports the greatest number of ORV facilities in the Commonwealth. As all the adjoining states do not allow or severely limit ORV use on their state properties, the Berkshire Ecoregions attracts riders from these states also. Due to the limited riding areas available in the Northeast, the growing popularity of ORV riding and the limited resources available to maintain the trails, the impact of this activity on the trail system has proven problematic and a DCR Study Team was formed to address this issue.

A recommendation of this committee led to the closing of Savoy State Forest to ORV use, leaving October Mountain, Pittsfield, Tolland and Beartown State Forests as the remaining legal ORV riding areas in the Berkshire Ecoregions. Realizing this issue expands beyond just DCR properties, a broad based ORV Advisory Committee is being formed which will continue to address the ORV issue and provide recommendations.

Another initiative currently underway, which could impact recreational use, is the designation of certain large scale and small scale forest reserves. In conjunction with the Nature Conservancy, the EOEA and its agencies are planning to designate (based on environmental criteria) certain lands as forest reserves. Such designations could limit both existing and future recreational activities and could possibly affect management of these properties. The planning process currently underway is trying to minimize potential recreational use impacts.

In general, forest management activities can affect recreational uses and continued communication and cooperation between forest management and recreational use is essential to minimize conflicts and maximize opportunities.

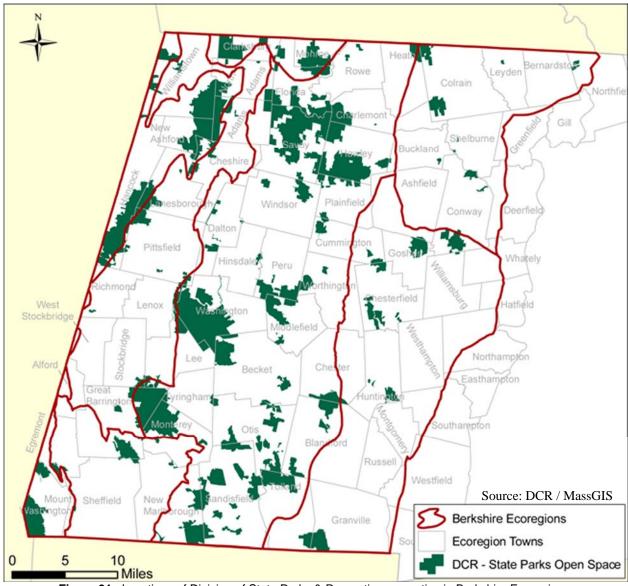


Figure 31. Locations of Division of State Parks & Recreation properties in Berkshire Ecoregions.

The <u>Division of Fisheries and Wildlife Management</u> has acquired (in fee) some 59 properties (40,765 acres) in the Berkshire Ecoregions. The 59 properties include the Western District H.Q., 37 Wildlife Management Areas, 10 Natural Heritage Areas, 7 River Access locations, and 2 Sanctuaries (**Figure 32**). A list of the properties can be found in **Appendix XI**. Additional information on these and other DFW properties is available at: www.mass.gov/dfwele/dfw/dfw_wma.htm. Information on outdoor recreation is also available on the following DFW web site: www.mass.gov/dfwele/dfw/dfwrec.htm.

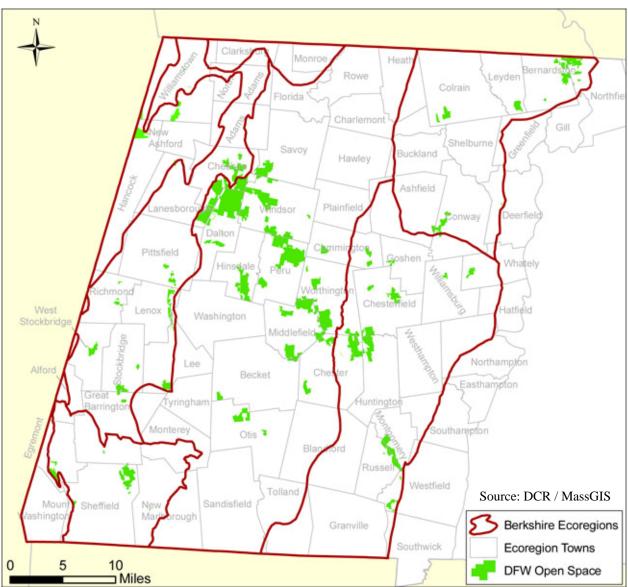


Figure 32. Locations of Division of Fisheries and Wildlife properties in the Berkshire Ecoregions.

Forest-based Industry

In addition to lumber, pulp and fuelwood, forest ecosystems provide a number of other commercial products. These include Christmas trees, maple syrup, medicinal plants, fruits, nuts, oils, mushrooms, and charcoal, among others. Further, Massachusetts' forest resources provide various noncommodity values such as habitat for wildlife, biodiversity protection, recreational opportunities, scenic landscapes, clean air, stable soil, and high quality water. Many of these values contribute to the economic well being of the tourism industry in Massachusetts. While most of these values are difficult or impossible to quantify, their cumulative value is still very significant. Unfortunately, these values often go unrecognized.

The forest resources of the Berkshire Ecoregions support a number of jobs and local businesses, including sawmills, timber harvesters, private consulting foresters, maple sugar producers, and Christmas tree growers. Data on each of these follows. While these lists do not portray a complete picture of the forest product related commercial activity occurring in the Berkshire Ecoregions, they nonetheless are based on the most current information that was readily-available.

Despite this significant contribution to the local economy, a substantial amount of the forest products generated in the Berkshire Ecoregions are exported. Conversely, many of the wood and other forest products sold and used in the region are imported. For example, in 2001, Massachusetts purchased more than \$745 million worth of forest products from Canada (www.canadianembassy.org/2002/maen.asp) and in 2002 Massachusetts bought \$681 million worth of Canadian forest products (www.canadianembassy.org/2003/maen.asp).

Sawmills

There are 15 sawmills within the Berkshire Ecoregions, located in the communities of Ashfield, Chester, Chesterfield, Granville, Lee, New Marlborough, Savoy, Sheffield, Shelbourne, Southwick, Westfield, and Williamsburg (**Table 20**). Of these there is one band mill, one scragg mill, and the remainder are circular sawmills. There are also 4 portable sawmills, one each in the communities of Ashfield, Colrain, Sandisfield, and Worthington. There are six (6) kilns, one each in the communities of Ashfield, Chesterfield, Greenfield, New Marlborough, Sheffield, and Shelbourne. Services offered by these businesses (including portable mills) include: sawing (17), planning (9), molding (2), milling (5), and kilns (6). The annual production of these mills in 2001ranges from 10,000 board feet to 7,800,000 board feet, with a total of 32,307,000 board feet (**Table 21**). All commercial species are milled somewhere within the Berkshire Ecoregions. Products from these mills include:

- Boards and long lumber
- Timbers, beams, and landscape ties
- Siding
- Quarter sawn lumber
- Dimension lumber
- Flooring
- Pallet stock
- Decking
- Log homes
- Fuel wood and chips
- Bark and sawdust

Notably absent from the Berkshire Ecoregions (and the state as a whole) are hardwood or softwood pulp-using industries. A number of sawmills use their wood wastes for co-generation, and known commercial users of biomass for heat or energy in the state are listed below:

- Athol- Royalston High School- Athol 3 million BTU/HR thermal only system providing heat and domestic hot water to the 89,000 square foot building - uses about 400 tons/ yr of hardwood sawmill chips. www.mwcc.mass.edu/programs/FWP/athol.html
- Cooley Dickenson Hospital Northampton
 Wood-chip fired boiler. The combined heat and power biomass system will generate 80 kW of
 electricity and produce heat in combination with a boiler already on site.
- Mount Wachusett Community College Gardner
 7 MMBTUs Thermal Energy System for heat and domestic hot water utilizing 1,000 tons / year.
 Planned: 50 75 kW of electricity and approximately 420,000BTUs of thermal energy per hour.
 www.mwcc.mass.edu/renewable/biomass.html
- Pinetree Power Plant Westminster
 18 MW electrical generation facility with primary electrical customer being Fitchburg Gas & Elec. Co. uses approximately 200,000 tons/yr of wood residues as well as landfill gas from adjacent Fitchburg landfill as fuel.

There are many small wood-using industries and crafts producers that rely on a mix of locally produced and imported forest products. Many of the mills in the state have their own websites. Members of the Massachusetts Forest Products Association can be found at: www.massforest.com.

Table 20. Sawmills & Kilns by Community (Berkshire Ecoregions).

				Туре			2001					
	Community	Circ.	Band	Scragg	Portable	Total	Production (MBF)	Kiln	Sawing	Planing	Molding	Milling
1	Ashfield	1			1	2	3,097	1	1			1
2	Charlemont	1				1			1			
3	Chester	1				1	2,500		1			
4	Chesterfield	1				1	6,500	1	1			
5	Colrain				1	1						1
6	Granville	1				1	1,003		1			
7	Greenfield							1				
8	Lee	1				1	50		1	1		
9	New Marlborough	1				1		1	1	1	1	
10	Sandisfield				1	1			1	1	1	1
11	Savoy	1				1	50		1	1		
12	Sheffield		1			1	3,000	1	1	1		
13	Shelburne	1				1	10	1	1	1		
14	Southwick	1				1			1	1		1
15	Westfield			1		1	4,547		1			
16	Williamsburg	3				3	11,550		3	2		
17	Worthington				1	1			1			1
	Totals:	13	1	1	4	19	32,307	6	17	9	2	5

Source: "Massachusetts Directory of Sawmills & Dry Kilns 2003"

Table 21. Number of Sawmills and Production Statewide

Year	# of Sawmills	# of MMBF
1980	161	200
1984	133	230
1993	94	100
1996	88	104
2001	58*	69

^{*} Includes 18 portable band mills.

Source: DCR

Timber harvesters

There are 187 licensed timber harvesters in the Berkshire Ecoregions, distributed geographically throughout the five (5) Ecoregions, as indicated in **Table 22**. The highest concentration of timber harvesters list Worthington as their home community. Timber harvesters live in 53 of the 70 communities in the five (5) Berkshire Ecoregions.

Table 22. Licensed timber harvesters by community (Berkshire Ecoregions).

	Community	#
1	Adams	2
2	Ashfield	6
3	Becket	3
3 4 5	Bernardston	1
5	Buckland	1
6	Charlemont	7
7	Cheshire	2
8	Chester	3
9	Chesterfield	3
10	Clarksburg	4
11	Colrain	8
12	Conway	2
13	Cummington	8
14	Dalton	4
15	Florida	2
16	Goshen	3
17	Granville	6
18	Great Barrington	2
19	Greenfield	3
20	Hancock	2
21	Hatfield	2
22	Hawley	3
23	Heath	1
24	Hinsdale	1
25	Huntington	5
26	Lanesborough	1
27	Lenox	1
28	Leyden	2
29	Monterey	3
30	Montgomery	1

31	North Adams	1
32	New Marlborough	3
33	Northampton	3
34	Northfield	5
35	Otis	3
36	Pittsfield	6
37	Plainfield	4
38	Richmond	1
39	Rowe	4
40	Russell	2
41	Sandisfield	5
42	Savoy	5
43	Sheffield	5
44	Shelburne	10
45	Southampton	1
46	Southwick	2
47	Stockbridge	1
48	Tolland	1
49	Westfield	11
50	Williamsburg	4
51	Williamstown	2
52	Windsor	1
53	Worthington	15
	Total:	187

Source: DCR

Private consulting foresters

There are at least 32 licensed Private Foresters living in the communities of the Berkshire Ecoregions, distributed geographically, as shown in **Table 23**. The highest concentration of private foresters list Greenfield or Russell as their home community. They live in 22 of the 70 communities in the Berkshire Ecoregions. Many are members of the Massachusetts Association of Professional Foresters (*www.massforesters.org/*), the Society of American Foresters (*www.safnet.org/*), or the Forest Stewards Guild (*foreststewardsguild.org/*). More information on both Licensed Foresters and private foresters is available at the DCR / DSPR / Bureau of Forestry website at: (*www.mass.gov/dcr/stewardship/forestry/index.htm*)

Table 23. Number of licensed private consulting foresters by community (Berkshire Ecoregions).

	Community	#
1	Alford	1
2	Becket	1
3	Chesterfield	1
4	Colrain	1
5	Conway	1
6	Cummington	2
7	Dalton	1
8	Deerfield	2
9	Granville	2
10	Great Barrington	2
11	Greenfield	3
12	Northampton	1

13	Peru	1
14	Russell	3
15	Sandisfield	1
16	Sheffield	1
17	Shelburne	2
18	W. Stockbridge	1
19	Westfield	1
20	Westhampton	1
21	Williamsburg	2
22	Windsor	1
	Total:	32

Source: DCR

Maple sugar producers

At least 56 sugarhouses operate within the Berkshire Ecoregions (**Table 24**) and are members of the Massachusetts Maple Producers Association (*www.massmaple.org/*) The town of Shelburne has the greatest concentration of sugarhouses (5), followed closely by Ashfield, Westhampton and Worthington with four (4) each. Forty-six (46) of the fifty-six (56) sugarhouses listed burn wood to boil their sap.

Table 24. Maple sugar producers by community (Berkshire Ecoregions).

	Community	#
1	Ashfield	4
2	Becket	1
3	Bernardston	1
4	Blandford	1
5 6	Charlemont	1
	Chester	1
7	Chesterfield	1
8	Colrain	1 3 2 1
9	Conway	3
10	Cummington	2
11	Deerfield	1
12	Egremont	
13	Florida	1
14	Granville	1
15	Hancock	1
16	Hatfield	1
17	Heath	3
18	Huntington	1
19	Lenox	1
20	Leyden	3
21	New Ashford	1
22	Northampton	1
23	Northfield	1
24	Otis	1
25	Plainfield	1 1 1 2 5
26	Shelburne	5
27	Southwick	1
28	Westfield	1
29	Westhampton	4

	TOTAL:	56
32	Worthington	4
31	Williamsburg	3
30	Whately	2

Source: "Massachusetts Maple Producers Association"

Christmas tree growers

Christmas tree growers in the Berkshire Ecoregions produce trees as well as garland roping and accessories for retail and/or wholesale markets. There are eight (8) Christmas tree growers located within the five (5) Berkshire Ecoregions that are listed in the online directory of the Massachusetts Christmas Tree Association (www.christmas-trees.org/). See **Table 25**.

Table 25. Christmas tree growers by community (Berkshire Ecoregions).

Community	#
Ashfield	1
Blanford	1
Cummington	1
Great Barrington	1
Hancock	1
Washington	1
Westfield	1
Windsor	1
Total:	8

Source: "Massachusetts Christmas Tree Association"

Spiritual Values

Forest ecosystems have cultural and spiritual values that may defy quantification, but are still very important since they influence public opinions and decisions regarding the management of those forests. The large blocks of undeveloped and relatively unbroken mature forest cover in the Berkshire Ecoregions undoubtedly provide a source of personal and spiritual renewal for many residents and tourists. Often, this value of natural areas goes unrecognized until management or development activities threaten to alter those areas.

<u>Cultural Resource Protection</u>

The Commonwealth of Massachusetts is heir to a rich legacy of cultural resources; its historic buildings, structures, archaeological sites, and landscapes are reminders of the important role that the state has played since long before the Pilgrims landed at Plymouth. These resources are milestones in the course of history and teach us about how people lived during prehistoric, pre-and post-Colonial times. They inform us about the industrial and technological changes of the 19th and 20th centuries, and even give us a glimpse life during the Great Depression, and two World Wars.

Combined these diverse historic resources document the human experience in Massachusetts. Scattered across the landscape, this ensemble of buildings, structures and sites tell the story of our common heritage – our Commonwealth – and their protection and preservation has become a vital component of DCR's mission and policy for resource stewardship.

At the time of writing, DCR staff has had the opportunity to make only a cursory inspection of the archaeological record of five Berkshire Ecoregions. It was known from the outset that the DCR's Site Inventory that was performed in 1985 was in need of updating. It was also known that western Massachusetts is the only part of the State that was not studied as part of the Massachusetts Historical Commission's Statewide Survey, which culminated in 1984 with the completion of the Connecticut River Valley. Therefore, it was known from the beginning that the information available for developing cultural resource preservation strategies was incomplete and only preliminary in nature. The following section is offered with these shortcomings in mind.

The western region of Massachusetts consists of rough, hilly terrain and low river valleys. Although archaeological information on Native American activities in the Berkshires is limited, it is likely that the region was occupied throughout prehistory i.e., from Paleo Indian times 12,000 years ago to early historic times only 450 years ago.

While it is doubtful that Native American populations in the hills of the Berkshires ever approached the numbers of those in the eastern part of the state, particularly in the coastal and estuarine zones, or the nearby Connecticut River Valley, the existing archaeological record must be considered artificially low. This bias has been induced by a number of factors and, as suggested below, actually creates great promise and opportunity for resource preservation and protection. A principal cause of bias, other than the lack of comprehensive research, is the relative lack of amateur collecting activities due to limited development and farming which the region has experienced.

A site inventory based on the archaeological site files of the MHC was performed in preparation of this section and reviewed recorded sites on thirty-six U.S.G.S. Topographic maps for the five Ecoregions of the Berkshire. Even at this basic level of inquiry, a total of 181 prehistoric archaeological sites are recorded within the five Berkshire Ecoregions (**Table 26**). Interestingly, in some places there are thousands of acres where not a single prehistoric site is recorded i.e., the four contiguous USGS Quadrangle Maps of South Sandisfield, Otis, Blandford, and Tolland Center are completely void of recorded prehistoric archaeological sites. At the same time thirty sites are recorded on the West Pittsfield Quadrangle, twenty-four on the Woronoco Quadrangle, twenty on Great Barrington, seventeen sites on the Stockbridge Quadrangle, and eight for Rowe, seven for Cheshire, and eight for Shelbourne Falls/East Conway. Note: these numbers refer to the entire Quadrangles and not necessarily sites that exist within lands that comprise the five Ecoregions of the Berkshire's.

Table 26. Pre-historic archeological sites (Berkshire Ecoregions)

USGS QUAD NAME	# of SITES
Alford	0
Ashfield	1
Ashley Falls	7
Bash Bish	0
Becket	3
Berlin	1
Bernardston	2
Blandford	0
Cheshire	8
Chester	2
Colrain	0
East Lee	1
Egremont	7
Great Barrington	20

Goshen	0
Hancock	3
Heath	1
Monterey	6
North Adams	1
Otis	0
Peru	1
Pittsfield East	10
Pittsfield West	30
Plainfield	1
Rowe	8
Shelburne Falls	8
South Sandisfield	0
Stockbridge	17
Tolland Center	0
Westhampton	9
West Granville	0
Williamsburg	1
Williamstown	8
Windsor	1
Woronoco	24
Worthington	0
TOTAL	181

Source: DCR / MHC

There are five Ecoregions (two with two associated landtype associations) in the Berkshire Ecoregions. While there are some very important ecological differences between them they cannot explain the presence of Native American occupation in one, and the lack of occupation in another. To the contrary some of the ecological characteristics of the areas where there are no sites are very favorable, even if within limited areas. One must surmise from this that archaeological sites exist, but they simply haven't been found. Over the years archaeologists have developed a model for identifying locations where sites are likely to occur. By evaluating *Site Location Criteria*, which takes into account several geographical and ecological characteristics, areas of *high archaeological sensitivity* can be identified. By employing this model we can make reasonable predictions about the presence or absence of sites within the five Berkshire Ecoregions, and this will become an invaluable tool in the in-house evaluation of impacts to archaeological resources from the implementation of the Bureau's Silviculture program.

Prehistoric Overview & Archaeological Resources

Existing archaeological data combined with historic records and oral tradition indicates that the Native inhabitants of western Massachusetts, particularly the Berkshires, but also including the middle Connecticut River Valley, had strong ties and cultural affinities to the peoples of the Hudson Valley, more so than to their eastern relatives. It also appears that these ties extend far back into antiquity, and did not just develop in late prehistoric or early historic times.

Presumably the first humans to occupy this region would have been Paleo Indian hunters and gatherers (ca. 12,000 – 9,000 B.P.) While no Paleo sites are known specifically in five Ecoregions of the Berkshires, a number have been identified a short distance west on the Hudson River, to the north in

Vermont, New Hampshire and Maine, in Connecticut, and several in central, eastern, and southern Massachusetts. Significantly, the DEDIC site in Deerfield, which dates to between 9,000 – 12,000 years old is located only a few miles east of the Southern Green Mountain Ecoregion.

From approximately 12,000 years ago to the present, warming climatic trends have resulted in marked landscape changes i.e., forests evolved from tundra-like conditions to Spruce Woodland, to Mixed Spruce and Hardwood Forests, and finally to the Eastern Deciduous Forest of today. These changes included a broad spectrum of commensurate adjustments in associated flora and fauna as well --with each presenting it own challenges and opportunities to the local human populations. Indeed, the current archaeological record reveals that the topographical and geographical area that comprises the Berkshire Ecoregions was occupied through the ensuing Early, Middle, and Late Archaic periods (ca. 9,000 – 3,000 B.P.), as well as Early Middle and Late Woodland periods (ca. 3,000 – 500 B.P.)

In order to place Berkshire Ecoregions within a broader temporal and spatial context a model of settlement in the Western Highlands of the Commonwealth has tentatively been formulated based on research in New York (Funk and Ritchie 1973), and Connecticut (Wadleigh 1983). When applied to the Berkshire Ecoregions, this model predicts that sites located within the highland and upland portions of the region would often be special purpose sites such as quarries, kill sites, and rockshelters. Such sites would tend to be small in area because they were occupied only briefly during the seasonal rounds of small foraging groups or nuclear families. In this model, the Berkshire highlands or uplands are viewed as marginal hinterlands, only used seasonally by peoples who otherwise spent most of the year elsewhere, presumably at lower elevations adjacent to rivers and streams, lakes, ponds and wetlands.

Conversely, the alluvial plains associated with the region's many major rivers such as the Housatonic, Deerfield and Westfield and their tributary streams, would generally be expected to contain larger sites, because they would have been occupied by more people for longer periods of time than those of the upland/highland regime. Similarly, elevated well-drained locations around naturally occurring lakes, ponds, and wetlands may also tend to be larger because they attracted diverse animal and plant species, which in turn were capable of supporting larger and more diverse human populations.

Two important changes that occurred in New England may also have important implications for Native American occupation of the Berkshire Ecoregions from at least 8,000 to 2,500 years ago: one of these was natural, and the other was cultural. First, approximately 8,000 years ago scientists believe that the spawning behavior of anadromous fish became reestablished after being disrupted by the Wisconsin Glacial (Dincauze 1975). From that time on, throughout New England, locations situated adjacent to falls and rapids along the region's major rivers became important for the seasonal harvest of this fishery. Indeed, this fishing activity may have become critical to group survival throughout the rest of prehistory. Therefore, those rivers which retain, or at least before historic damming, had outlets to the sea (Long Island Sound) may be expected to yield higher site densities than those that did not. Secondly, by at least 2,500 years ago, alluvial terraces became particularly attractive to local horticulturalists who had just learned to domesticate corn, beans and squash. Thus, it is predicted that riparian zones in general, and particularly those with well developed floodplains, will contain late archaeological sites i.e., Early, Middle, and Late Woodlands sites ca. 3,000 to 500 years ago.

Historic Overview & Archaeological Resources

Town Histories written in the 19th century provide reasonably good documentation of Native American activities and sites throughout the Berkshires, although by the time they were written they were already second hand accounts. Perhaps the most obvious remnant of the Early Historic Period is a system of trails, which are believed to have been derived from prehistoric times.

The Mohawk Trail, which roughly corresponds to portions of present Route 2, was a major east-west corridor between the Hudson and Connecticut valleys. From Deerfield, this important trail went over King Arthur's Seat, and crossed the uplands to Shelburne Falls, and then it proceeded along the north

bank of the Deerfield from the North River Ford in Colrain through Charlemont and over the Hoosac Range. Another important east-west trail connected the Connecticut and Housatonic rivers via the Mill River from Northampton through Williamsburg and up into the Goshen uplands. From there it continued west paralleling the Swift River gorge through Cummington, toward Plainfield Pond and eventually to Pittsfield (MHC 1984). The most southerly of the major east-west trails followed the north bank of the Westfield from the Connecticut River to the Woronoc ford in Westfield, and along Munn Brook to the Berkshire foothills. From here the trail climbed over Westfield Mountain to Russell Pond, where it looped across the Blandford highlands to Big Pond in Otis, and continued west to the Housatonic Valley (MHC 1984).

Among the principal north-south routes is the Housatonic River Trail, which corresponds roughly to Route 7 and passes through the entire Region V from its borders with Connecticut to Vermont; and the Hoosic River Trail, thought to more or less follow present Route 8, connected Cheshire and Adams. Lastly Mahicans are reported to have passed between summer fields in Pownal (Vermont) and winter hunting grounds around Pittsfield (Booth and Drinkwater 1982:5). A number of lesser, or secondary trails crisscross the Berkshire Ecoregions generally connecting stream systems and waterways. The nature of this well-defined interconnected trail system suggests a transportation network that had some antiquity, i.e., it was used well into prehistoric times.

It isn't easy or perhaps not possible to make broad generalizations about the history of an area as diverse and large as the Berkshire Ecoregions, as almost by definition the diversity precludes generalizations. Nevertheless, in the interest of brevity, certain salient or underlying characteristics do standout that make the Berkshire's history distinct, if not unique, within the state.

Due largely to its rugged topography characterized by high elevations dissected by a maze of steep stream and river valleys; much of the land within the Berkshire Ecoregions was not settled until the mid 18th century. Ecological conditions created a formidable barrier to Colonial settlement, which first focused on the broad river basins of the Connecticut and Hudson rivers. Only after these areas were filled in did settler's attentions turn to the highlands, and here too, the bottomlands surrounding the larger rivers tended to be settled first. National and inter-colonial friction also hampered settlement of this frontier region. The disruption of traditional Native American cultural systems brought about by the fur trade, and being drawn into colonial wars, resulted in unrest and antagonism between the indigenous people and the aspiring settlers. Further complicating matters was the fact that New York, Connecticut and Massachusetts each held claim to the land between the Hudson and the Connecticut rivers.

Slowly, as population pressures increased even the highlands began to fill-in as "hill towns" increasingly took root in the most advantageous locations. In these early years, the Native American trail system proved vital to the colonial development of the Berkshires because of its dependency on available transportation routes. The Greenfield, Westfield and Hoosic rivers played an important role in the establishment of early European settlements. This role was enhanced as the Industrial Revolution found its way to the Berkshires, and small family owned and operated industrial and commercial businesses were transformed into large highly competitive corporate entities such as the woolen mills in North Adams.

While farming was a primary activity in the early years of historic settlement throughout most of the region, in the highlands this provided a marginal subsistence at best, and its occupants often supplemented their livelihood by undertaking a wide range of endeavors. Sawmills and gristmills sprang up along the riverbanks in many communities in the early years of each community's settlement. Railroad construction was to have a profound impact to the landscape of the western region, when in 1876 a major engineering feat was completed: the construction of the Hoosac Tunnel.

Besides its impact on industry, the development of rail lines throughout Berkshire County opened up the region for a new industry – tourism. Writers and artists began to flock to the Berkshire hills for summer respite, and the late 1800s saw development of tourist related industries such as grand hotels, sumptuous Inns, and summit houses. In the early 19th century wilderness and the natural beauty of the new United States was a romantic ideal. Outdoor recreation became a popular tourist activity, and the ridges and mountaintops of Berkshire County enjoyed increasing visitation. This was also the era of the "rustic cabin" or lodge which were becoming so popular with the wealthy in the northeast's urban centers, and which saw New York's Catskills and Adirondack Mountains, and the forests of Maine become the center of the summer's social circuit. In the Berkshires this era is represented by the former mountain retreat of Alfred C. Douglas (Bash Bish Falls), and the grand Whitney estate (October Mtn.).

An interesting historic phenomenon of the Berkshire Ecoregions is the population deflation experienced in some areas in late 19th and early 20th centuries, and which resulted in the total abandonment of some of its hill towns i.e., South Hawleyville (Dubuque State Forest), and New Marlborough (Cookson State Forest). A number of circumstances caused this demographic reversal. The effects of economies of scale, which saw small town millers and farmers unable to compete with the increasingly larger and more technologically advanced industries of the growing regional urban centers in North Adams, Great Barrington and Pittsfield. A number of federal Acts and Decrees, and private "getrich-schemes" encouraged many to forsake the marginal existence of the family farm and mill for the promise of easier times in the vast open spaces of the mid and far west. The final blow came with the Great Depression, when some community populations had dwindled to but a few, and the prospects of being compensated for land that one could no longer earn a viable living from was offered. Thus, the last inhabitants of some of the western highland hill towns sold their holdings to the Commonwealth, leaving their legacy within the state's Forest and Park system.

Thus, as an accident of the development of the Commonwealth's Forest and Parks system, virtually every type of historic archaeological site imaginable has been preserved in one form or another within the Berkshire Ecoregions. Over the years, as park and forest lands were acquired, the buildings and structures that formerly occupied those lands were often removed, creating a series of **historic archaeological sites** scattered across the landscape. In some cases these sites are isolated occurrences, such as the remains of a small self-sufficient farmstead. While in other cases a cluster of sites, such as several mills along a stream, may represent a former mill village, each individual site of which is related to the other in time and space. Also, the loss of population and the abandonment of entire "hill towns" have resulted in the creation of a series of related historic archaeological sites that were once churches and meeting houses, schools, stores, banks, hotels, cemeteries and homesteads.

The existing historic site inventory for the Berkshire Ecoregions ranges from the remains of a Shaker community (Savoy), to a spruce oil works (Windsor), to a gypsy camp (Balancing Rock). In some cases the physical remains of these sites are extremely well preserved, while in others only a faint depression or outline has survived. In either case, they have a story to tell, and are worthy of the agency's preservation efforts. A brief sample of each general category of historic sites that are known, or expected to exist, within the Berkshire Ecoregions -- domestic, industrial, commercial, and civic --is outlined below:

- **a. Domestic sites:** Remains of farmhouses together with their associated barns, chicken coops, ice and milk houses, granaries, and fenced in fields and pastures may be informative regarding regional landuse and farming practices. The stone foundations and cellar holes of this class of historic sites are found in virtually every property within the Berkshires, with the possible exception of Rowe SF, for there are no cultural resources inventoried at this time.
- **b. Industrial sites:** Among the industrial sites recorded within the Berkshire Ecoregions are the remains of saw-mills and gristmills (Chester/Blandford, Florida, Cookson, and Granville), textile mills and shoe manufacturing shops (Western Gateway Heritage State Park), brick and charcoal kilns (Pittsfield and Dubuque respectively), marble quarrying (Natural Bridge), iron ore mining and forge (Cookson), mica mining (Chesterfield/Blandford), tannery (Dubuque), a mid-19th century rifle

manufacturing plant (Florida), blacksmith (Mohawk Trail), hydrological power works (Tolland), and a cider mill (Mt. Washington).

- c. Commercial sites: Less common, or at least less easily identified than industrial sites are those classified as commercial sites. Typically such sites were small rather obtuse buildings and operations that can not easily be differentiated from many domestic sites. Indeed, these were often small shops or stores (general provisions, tools and hardware, post offices were often within general stores etc.), which were either within a house or were otherwise identical to it in appearance. The general store in Cookson SF is an example of this type of site. Taverns are a special class of commercial site such as Joy's Tavern, which also served as the post office of South Hawley (Dubuque).
- d. Civic sites: Because of the manner in which the Forest and Park system was created, often with land takings, sometimes abandoned land, but other times viable and operational land, it is not surprising that the remains of many civic sites have survived in the archaeological record. Recorded civic sites in the Berkshire Ecoregions include schools (Savoy, Granville, East Mountain, and Beartown), meeting houses (Savoy), churches and parsonages (Monroe) and a number of cemeteries (Savoy, Mohawk, Beartown, Dubuque, Bates, Tolland, Monroe, Otis, Mt. Washington, H.O. Cook, Shaker Mem., October Mtn. and Pittsfield). Perhaps the most ubiquitous civic sites are old roads, which, like homesteads exist within most of the State Forests and Parks of the Berkshires.
- e. The Civilian Conservation Corps (CCC): Since many of the early parks were cutover forest or isolated natural features, the citizens of the Commonwealth had limited access to outdoor recreation. It was not until the 1930s that the parks of the Berkshire County region were transformed into premier recreational facilities under the direction of the Civilian Conservation Corps (CCC). From 1933 through 1938, the CCC worked in over one dozen forests and reservations in Berkshire County, expanding roads, trails, campgrounds, swimming areas and scenic areas in the state forests. Many of these improvements remain the cornerstones of the DEM facilities in the five Berkshire Ecoregions.

Between 1995 and 1999 DEM compiled a comprehensive inventory of the CCC resources remaining in the Forests and Parks of Massachusetts. Prepared by Shary Berg, *The Civilian Conservation Corps: Shaping the Forests and Parks of Massachusetts* provides information on all of the 22 facilities in Region V that benefited from the work of the CCC. Some of the resources in these parks – ranging from bridges and dams to lodges and landscapes - have been noted for their exemplary design and construction, and many areas are eligible for listing on the National Register of Historic Places. Of note are:

- ❖ Boulder Park, Chester-Blandford State Forest A well preserved collection of CCC resources including a picnic ground and pavilion, a rustic log gazebo, a swimming area and bathhouse as well as paths, stone steps and landscaping.
- ❖ Administration Building & Rental Cabins, Mohawk Trail State Forest; and South Pond Cabins & Stable, Savoy Mountain State Forest Excellent examples of the CCC method of log construction.
- ❖ Raycroft Lookout, Monroe State Forest A fieldstone lookout with spectacular views toward the Deerfield River.
- Summit, Mount Greylock State Reservation Listed on the National Register of Historic Places, the Greylock Summit includes Bascom Lodge, Thunderbolt Ski Shelter, Summit Garage, trails and roadways designed and constructed by the CCC.
- ❖ Felton Lake Bridge, October Mountain State Forest Although the CCC developed shelters, bridges and trails at Felton Lake, remaining CCC resources are limited to a dam and a stone arch

bridge. Featured in Albert Good's *Park and Recreation Structures*, the bridge is typical of CCC design.

- ❖ Ski Lodge and Comfort Station, Pittsfield State Forest The Ski Lodge is a well-preserved example of a multi-use building constructed by the CCC.
- ❖ Berry Pond Circuit Road, Pittsfield State Forest This intact CCC roadway provides access to the CCC campground at Berry Pond while also creating a scenic route past an azalea field, a pond and dramatic mountaintop vistas.
- ❖ <u>Administration Building, Pittsfield State Forest</u> This small CCC building was rehabilitated for use as an interpretive center and retains interior chestnut paneling from the 1930s.
- ❖ Steep Bank Brook Area with Dam, Windsor State Forest A good collection of recreation resources including a swimming area, log bathhouse and a steel truss bridge. One of the most dramatic features of the area is a drop log dam with stone-faced piers.

The 1999 statewide CCC survey identified the above resources as significant cultural resources of the Commonwealth. As the extant remains of the legacy of the Civilian Conservation Corps (CCC) in Massachusetts, these buildings and landscapes should be protected as part of the Cultural Resource Management of the region as a whole.

Historic Buildings, Structures & Landscapes

The current level of information on historic buildings, structures and landscapes within the Commonwealth's Forests and Parks system is limited. The primary source for information on these types of resources is the Baseline Cultural Resource Inventory (1984) which identifies known sites and potential sites for historic properties. While some sites are listed on the National Register of Historic Places or documented in other ways, many sites included on the baseline inventory have been predicted based on old atlases, town and county maps and other primary sources. The inventory identified almost 2000 known and predicted sites across the state with a high concentration in the Berkshire County area. At this time, the 1985 Baseline Inventory is outdated and most predicted sites have not been verified in the field. Another major downfall is that the inventory does not include property acquired by DCR since 1985 to either expand existing facilities or to establish entirely new parks

Despite the shortcomings of the Baseline Inventory, the existing stock of historic buildings, structures and landscapes within Berkshire Ecoregions is as significant as it is diverse. Properties range from the small Benjamin Osborne Farmhouse/Ann Lee Cottage (Mount Washington SF) to Bascom Lodge on Greylock Summit; from the Marble Quarry at Natural Bridge to the former Boston & Maine Freightyard at Western Gateway. In addition to unique resources, there are buildings, campgrounds, recreation areas, trails, roads, bridges and dams associated with the Civilian Conservation Corps (CCC) which reflect a method of rustic design and high quality craftsmanship that is consistent across the region.

National Register of Historic Places

National and State Register Resources

There are fifty-eight communities and a portion of twelve others within the five Berkshire Ecoregions. Within these communities there are about 236 listings on the State Register of Historic Places, representing in excess of 13,803 individual properties. Listings include single buildings and structures, as well as historic districts which may contain multiple resources such as buildings, landscapes and structures. Each listing reflects a valuable part of the Commonwealth's history and can range from a single 18th century milepost and individual farmsteads to mill and factory buildings, worker tenements

and public buildings. The listing inventory does not directly correspond to lands for which DCR provides stewardship; instead, it includes all of those properties within each of the communities that comprise the five Berkshire Ecoregions

The National Register of Historic Places is the nation's list of significant buildings, districts and sites which are worthy of preservation. Serving as the State Historic Preservation Office (SHPO), the Massachusetts Historical Commission (MHC) administers the National Register program for the state and maintains the State Register of Historic Places. The State Register includes National Register properties and properties included in local historic districts, local landmarks and properties protected by preservation easements. Some of the DCR properties in the Berkshire Ecoregions which are listed on the National Register are:

- Mount Greylock Summit Historic District
- Benjamin Osborne House (a.k.a.Ann Lee Cottage)
- Hoosac Tunnel
- Hancock Shaker Village (part of Pittsfield SF)
- Mohawk Trail
- Freight Yard Historic District (Western Gateway Heritage SP, North Adams)

Other properties of historical significance have been determined eligible for listing on the National Register. In most cases, properties eligible for listing should be managed as though they were listed, providing for a consistently high level of preservation. Some examples of resources that have been determined eligible for listing are:

- Natural Bridge State Park, North Adams (potential historic district)
- Jug End State Reservation and Wildlife Management Area, Egremont (potential historic district)
- Civilian Conservation Corps (CCC) resources (individual buildings, thematic resources)
- Individual buildings included in the Historic Curatorship Program

The repair, rehabilitation and stabilization of National Register properties should be consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Historic Landscapes

A number of specific areas within the five Berkshire Ecoregions have been identified by the Massachusetts *Landscape Inventory* (DEM 1982). This study recognized two principal areas: the Berkshire Hills and the Taconic sections. The Berkshire Hills contains the Deerfield Valley Unit (USGS Colrain, Ashfield, Shelbourne Falls, Greenfield, Williamsburg) and the Cumming ton Unit (USGS Worthington, Goshen). The Deerfield Valley Unit is described as including "probably the finest hill country scenery in the Berkshires with many small working farms, fine vistas and a pleasing mix of agricultural land and woodland." The Cummington Unit contains the Chesterfield Gorge "one of the most dramatic in the state" and the many hillside farms, historic structures and small villages in Worthington and Cummington.

The Taconic Section is comprised of the Mt. Greylock Unit (USGS Berlin NY, Williamstown, Hancock, Cheshire, Windsor), the Tyringham Unit (USGS Stockbridge, East Lee, Monterey), Stockbridge Unit (USGS Pittsfield West, Stockbridge), and the Great Barrington Unit (USGS State Line, Stockbridge, Egremont, Great Barrington, Bashbish Falls, Ashely Falls. Combined these units contain the most spectacular vistas and picturesque mountaintop and ridge scenery in the Commonwealth.

Small town centers and agricultural landscapes are abundant in this region. Most of the region remained rural and featured a dispersed settlement pattern throughout most of historic times. Abandoned hills towns create a remarkable ensemble of archaeological remains and attest the difficulties that many

18th, 19th and 20th century farmers faced in trying to eek out a living in the rugged Berkshire and Taconic hills. These same remains - stonewalls that partitioned off land for pasture and tillage, the archaeological remains of many former farms and mills, together with those still in operation - create significant *vernacular landscapes* for the Berkshire Ecoregions and to the Commonwealth in general. Likewise, the combination of these vernacular landscapes and the varied topography create a collection of significant *Scenic Landscapes* that are critical to preserve.

Summary / Conclusion

The relatively low archaeological visibility of the Berkshire Ecoregions has extremely important implications for property managers, foresters and students of archaeology and history alike. Because of limited modern population and development pressures, less open and tilled land, and fewer artifact collectors, there is potential that relatively intact archaeological sites remain to be discovered here. Thus, sites with good integrity, -- that is sites with limited disturbance, and which have a high degree of scientific research value -- are likely to exist in the Berkshires. These potential conditions make the preservation of archaeological sites within the five Berkshire Ecoregions of paramount importance and places an additional burden on the property manager and forester.

DFW seeks to conserve historical and cultural resources during harvesting operations. Stone walls, cellar holes, foundations, and wells associated with abandoned farm sites are located and mapped using GPS receivers prior to the start of harvesting operations, and DFW timber sale contracts require that these resources be avoided during the harvesting operation. Typically, only existing barways (openings) in stone walls are used to transport wood products by forwarder or skidder. However, a new opening may be created in a stone wall to facilitate transport of wood products if doing so avoids a wetland crossing, stream crossing, or crossing of rare species habitat. In addition, all harvest sites are reviewed for archaeological sensitivity for pre-historic sites, using a key developed by the MA Historical Commission. Specifically, sites with slopes < 5%, easterly aspect, <1000 ft from water, and well-drained soils are rated highly for pre-historical use. Rutting and other soil disruption is avoided in these areas by operating only under dry, frozen, or otherwise stable conditions, and by not conducting soil scarification activities that are sometimes employed to secure regeneration of desired tree species. Harvest plans for areas that are highly rated for pre-historical use are sent to the MA Historical Commission for review prior to beginning any harvesting operations.

DCR has developed "Cultural Resource Management Guidelines" for DCR properties that are listed in **Appendix XVI**.